

Native Insect Pollinators

Of the Southeastern United States



Green-eyed wasp

Honey bee

Beyond the Honey Bee

When people think about pollination, the honey bee immediately comes to mind. But honey bees are not native to the Americas. There are many other native insects that also provide the valuable service of plant pollination. Just about any insect that moves from flower to flower is capable of serving as a pollinator. Actually, it is really incredible how many insect species do pollinate. More than 4,000 species of bees, 750 species of butterflies, and thousands of species of wasps, flies and beetles act as pollinators for 75 percent of U.S. flowering plant species.

Native pollinators are extremely important because they maintain productive, diverse plant communities and help pollinate many of our agricultural crops. Unfortunately, native pollinator populations have declined in many parts of the United States. Land development, agricultural practices, habitat loss, pesticides, pathogens, and climate change are some of the factors shown to cause native pollinator decline. Consequently, the growing network of yards, community greenspaces, rights-of-way, and agricultural systems in conjunction with wild lands is becoming an ever more important resource for pollinators.

How can we help native pollinators?



PARTRIDGE PEA
Chamaecrista fasciculata

1 Plant native wildflowers

Wildflowers bloom at different times of the year, so plant a variety to provide food throughout the spring, summer and fall. Many species of wildflowers are easy to grow. Their variety of shapes and colors attract a multitude of different pollinators.



2 Provide nesting habitats

Set out *hollow bamboo sticks* and *drilled, untreated wood blocks* as habitat for many beneficial native bees and wasps.

Leave bare ground and do not till the soil. This allows ground-nesting bees and other pollinators to maintain and establish new nesting sites.

Leave some organic debris on the ground. Many pollinating flies and beetles use dead vegetation or wood for habitat.



Select Native Wildflowers

Swamp Sunflower (*Helianthus angustifolius*)

Giant Ironweed (*Vernonia gigantea*)

Mountainmint (*Pycnanthemum* spp.)

Trumpetweed (*Eutrochium fistulosum*)

Spiderwort (*Tradescantia ohiensis*)

Goldenrod (*Solidago* spp.)

Aster (*Symphyotrichum* spp.)

Blazing Star (*Liatris* spp.)

INDIAN BLANKET
Gaillardia pulchella

SWAMP MILKWEED
Asclepias incarnata

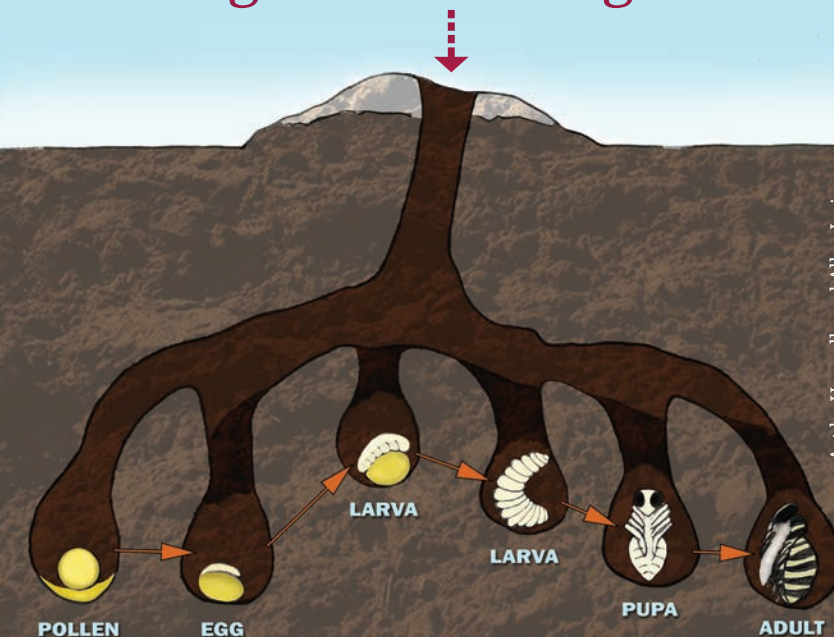
BUTTERFLY MILKWEED
Asclepias tuberosa

OBEDIENT PLANT
Physotegia virginica

SPOTTED BEEBALM
Monarda punctata

BLACKEYED SUSAN
Rudbeckia hirta

Underground bee nest showing the life cycle of a ground-nesting bee



Art by Hennelly and Allyn Irvin

Butterflies need host plants

Butterflies have four life stages: 1) egg, 2) caterpillar, or larva, 3) pupa, and 4) adult. During the larval stage, the caterpillar feeds on certain plants in order to grow and eventually pupate.



MONARCH CATERPILLAR



Sweat bee



Cuckoo wasp



Potter wasp

Good providers

Bees feed their young pollen and nectar, while wasps feed their young spiders and/or insects. Wasps are good natural enemies of garden and agricultural pests.



Leaf-cutting bee

No hive required

Unlike honey bees, most native bees and wasps are solitary and build their nests in the ground or in tunnel-shaped cavities.



Sand wasp

NATIVE BEES and WASPS



Bee fly



Green bottle fly



Hover fly

Look-alikes and others

Many flower-visiting flies strongly resemble bees and wasps. This protects the flies from sting-wary predators, but also makes identification challenging.



Flesh fly



Featherlegged fly

FLIES

Know Your Pollinators

Learn to identify the many native pollinators you may encounter in the great outdoors.



Longhorned beetle



Soldier beetle



Metallic wood-boring beetle



Scarab beetle

Meal time

Flower-visiting beetles, flies and bees gather pollen *and* nectar, while butterflies, moths and most wasps take *only* nectar.



Tumbling flower beetle

BEETLES



Hawkmoth



Skipper

A natural "straw"

Butterflies and moths have long, tubular mouthparts they use to draw out nectar that many other insects cannot reach.



Swallowtail



Sulphur



Hairstreak

BUTTERFLIES and MOTHS

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